# CHAPTER 1: INTRODUCTION

## The California High School Exit Examination

California has embarked on a new program to ensure that all students graduating from high school meet minimum standards for verbal and quantitative skills. Section 60850 of the California Education Code (EC60850) calls on the State Superintendent of Public Instruction to develop a High School Exit Examination (HSEE) to assess achievement of content standards for English Language Arts (ELA) and Mathematics set by the State Board of Education. The new examination is to be adopted by the Board by October 1, 2000 (EC60850a).

Following provisions in the legislation, a panel of teachers, principals, school board members, parents, and the general public was appointed by the Superintendent and approved by the Board. The HSEE Panel's primary responsibility is to ensure that the exam is aligned with the Board's rigorous content standards for ELA and mathematics (EC60850b). The panel will also consider and make recommendations on a range of test development and administration issues such as frequency of testing, accommodations for students with disabilities, and determination of passing levels.

The legislation specifies a number of steps to ensure that the HSEE will be of high quality. These include review by the Statewide Pupil Assessment Review Panel (see EC60614) and a field test to assess reliability, content validity, and freedom from bias (EC60850c). The exam must conform to testing standards and comply with Title VI of the Civil Rights Act (EC60850e). The legislation requires alignment with both the State's curriculum frameworks (labeled Instructional Validity) and with the content of textbooks used in California schools (labeled Curricular Validity) and must employ criterion-referenced scoring (EC60850f). The HSEE will be offered to students with exceptional needs (as defined in EC56026), with appropriate accommodations where necessary (EC60850g).

Beginning with the graduating Class of 2004 (who enter high school in fall 2000), all students will be required to pass the HSEE to receive a diploma from a public high school in California. School districts may implement additional exams or impose other requirements for high school graduation (ED60850h).

The HSEE will be the third statewide testing program for high schools students. The Standardized Testing and Reporting (STAR) Program, used in computing the academic performance index for elementary and secondary schools, is based on the same academic standards, although the HSEE is designed to assess only those STAR standards judged essential for high school graduation. A third program, the Golden State Examinations, is designed to assess more advanced achievement in particular high school-level courses.

## Goals for the New HSEE

The legislation specifies in detail the development of the HSEE and its use as a new graduation requirement. It does not, however, capture the debate and discussion, in Sacramento and throughout the state, that led to the new graduation requirement.

Presumably the primary goals of this new program are to identify students who are not developing skills that are essential for life after high school (e.g., college and employment) and to encourage districts to give these students the attention and resources needed to help them achieve these skills during their high school years.

The HSEE program may have other, secondary goals. Some Board and the HSEE panel members whom we interviewed suggested that the HSEE will help to ensure that districts provide students opportunities to learn the knowledge and skills specified in the State Curriculum Frameworks (California Department of Education, 1999d and 1999e). Another secondary goal might be to make a California high school diploma more useful for selection decisions made by colleges and employers.

## The Independent Evaluation of the HSEE

The enabling legislation also requires the Superintendent to contract for an independent evaluation, beginning in January 2000 (EC60855). Human Resources Research Organization (HumRRO) was selected as the evaluation contractor. The evaluation analyzes data from the field test and annual administrations of the HSEE and reports on trends in pupil performance and in pupil retention, graduation, dropout, and college attendance rates (EC60855a). Passing rates and each of the above trends are examined separately for English-language learners, students with exceptional needs, students qualifying for free/reduced lunch in Title I schools, and other groups identified by the evaluator as being differentially affected by the exam (EC60855b).

The legislation specifies that the evaluation include recommendations for improving the quality, fairness, validity, and reliability of the examination. The evaluator may propose revisions to the design, administration, scoring, processing, or use of the examination (EC60855c). This preliminary report, on the field test, is submitted to the California Department of Education (CDE) and to the State Board of Education (SBE), the state legislature, and the Governor. The report is intended to assist the SBE as it considers adoption of the HSEE. A supplemental report, containing additional analyses of the field test data and of teacher and principal survey data, will be completed prior to the SBE's September 2000 meeting. Subsequently, biennial evaluation reports will be submitted by February 1 of even-numbered years, beginning with 2002.

## Focus of the Evaluation

After reviewing the legislative mandate and holding discussions with CDE and SBE staff, HumRRO has organized the independent evaluations around three general topics:

- **Quality**: Does the exam provide an accurate and unbiased measure of the knowledge and skills specified in the curriculum standards to be tested by the exam?
- **Fairness**: Do all students have adequate notice of the new requirement, opportunity to learn the material covered by the exam, and opportunity to demonstrate what they have learned?
- **Consequences**: Do benefits from the exam, in terms of improved student achievement and other positive consequences, outweigh any negative consequences?

In this Year 1 report, the primary focus is on the quality of items developed for the HSEE. The Board has not yet approved the list of specific standards to be covered; no operational forms of the test have been assembled as yet; a number of decisions have yet to be made on administration and scoring procedures; and the passing level has not yet been set. No students have taken the exam under operational conditions. Consequently, it is premature to talk of consequences and we are limited in what we can say on issues of fairness.

## Evaluation Plan

Initial plans for conducting the evaluation were specified in our response to the Department's Request for Proposals. During this first year, these plans were updated in response to new and evolving information about plans for developing and implementing the HSEE. Revised evaluation plans were presented to the HSEE Panel in May and to the State Board at its June meeting. A separate report detailing information on the evaluation questions and data sources we will use in addressing these questions has been submitted to CDE (Wise, Hoffman, Harris, Sipes, & Ford, 2000). These plans are summarized briefly here as they relate to the Year 1 activities. Our evaluation plans involve reviewing and analyzing three types of information:

1. We will review plans, proposals, and reports of activities by the HSEE development contractors.
2. We will examine sources of data on all California students and schools, including, but not limited to, data from the HSEE field test and operational administrations.
3. We will gather more intensive data from a representative sample of districts and schools to understand and illustrate the link between the HSEE requirements and outcomes based statewide observations.

**Review of Contractor Plans and Reports.** Since no formal reports were available during this first year, we attended meetings and listened to presentations by the development contractor (AIR) and by CDE. We also monitored various presentations to the HSEE Panel and the State Board and had direct conversations with members of each of these groups.

**Statewide Data Sources**. As specified in the enabling legislation, a primary source of information for our evaluation will be data from the HSEE field test(s) and operational administrations. We have examined 1999 STAR results and will, of course, continue to monitor trends in STAR results over the course of the evaluation. Statewide data on retention and graduation rates and on college attendance will provide primary information on the key outcomes that the HSEE is expected to influence.

**District and School Sample**. In order to understand and document the consequences of the HSEE, we proposed a longitudinal study of a representative sample of high schools. We will collect a great deal of additional information from these schools, primarily through surveys and interviews, that will enable us to understand the impact that the HSEE will have on their programs. During the first year, we recruited teachers and curriculum experts from these districts to review test items and tell us if they covered knowledge and skill not covered for all students in their current curriculum. (See Chapter 3.) We also administered baseline surveys to teachers and principals in the participating schools as described in Chapter 5.

## Selection of Districts and Schools for Longitudinal Study

A brief description of the procedures used to select districts and schools for participation in our longitudinal study is provided here because the schools selected will play an important role as we track changes over the course of the evaluation. The detailed sampling design is described in a separate report. The first step in this process was to select 24 districts to represent California 10th grade students as closely as possible. The following stratification variables, listed in order of importance, were used to this end:

- Size (defined by the number of 10th graders in the STAR 1999 database). We defined four levels with boundaries set so that the total number of students in each level would be proportional to the number of schools to be sampled from that level.

  1. Very large (more then 10,000 10th graders),
  2. Large (2,011–10,000 10th graders),
  3. Medium (785–2010), and
  4. Small (less then 785).

  There is one very large district, which must be included in the sample. We sampled 7 large districts, one for every 20,625 10th graders; 8 medium districts, one for every 15,468 students; and 8 small districts, one for every 10,312 students.

- Proportion of students designated as English-language learners (ELL) (based again on 10th grade students). Within each size level, we divided districts into high and low proportion ELL groups. We chose the dividing line so that half of the students in districts of the target size would be in each group. Dividing lines ranged from 3.8% ELL for small districts up to 18.3% for large districts. The one very large district automatically included in the sample, was not further divided.

- Expected Score Level (defined by the STAR Mathematics mean for Grade 10). Within each size level and percent ELL group, districts were divided into two subgroups on the basis of 1999 average scores on the STAR 10th grade mathematics assessment. Math was selected over reading to capture variation across districts in the placement of algebra and other key parts of the mathematics curriculum and because reading scores were already correlated with the percentage of ELL students in each district.

After including the one very large district, we put districts in the remaining 12 groups in order (3 size levels by 2 ELL levels by 2 score levels) by:

- Community Type, using a rural, suburban, inner-city classification from the National Center for Education Statistics (NCES) Common Core of Data; and
- Geographic Location, indicated by the ZIP Code of the district headquarters.

Within each of the 12 sampling cells, we selected districts "systematically" (taking every "nth" district, for example, every 10th one, so that they would be as evenly distributed by community type and geographic location as possible) with probabilities proportional to the number of 10th graders. Replacement districts were identified for all but the largest district,

but all of the districts in the main sample are participating so we did not have to use any of the replacement districts.

The second step was to identify a sample of schools within each of the participating districts. In many cases, the smaller districts have only a single high school. The general plan was to sample 4–5 schools from the larger districts, 3 schools from the medium-sized districts, and 1–2 schools from the smaller districts. We ended up sampling 84 schools, an average of 3.5 for each of the 24 districts.

## Contents of the Year 1 Evaluation Report

This Year 1 Evaluation Report covers activities performed on the independent evaluation through June 30, 2000. Chapters 2 through 4 of the report describe different activities conducted during Year 1 and present the results of these activities. The final chapter describes the main conclusions that we draw from these results and our recommendations based on these conclusions.

Chapter 2, Background, contains our review of literature on the experiences in other states where similar graduation requirements have been or are being imposed. Given the high stakes nature of the HSEE, we conducted this background review to assist California in identifying and anticipating possible legal challenges in the implementation process sufficiently early to allow for modifications or course corrections as needed. We then used the results of this review to develop and implement activities in the item review workshops and to survey principals and teachers.

Chapter 3, Item Rating Workshops, encompasses both the design and administration of workshop sessions conducted with California teachers and curriculum specialists as well as the analysis and results of this effort. We selected a representative sample of districts from across California that were not part of the field test sample, and asked them to take part in the workshops. The participants' primary task was to assess how well a sample of field test items covers target standards and to rate whether students in their schools have the opportunity to learn the skills being tested.

Chapter 4, Analyses of Field Test Data, presents our initial examination of data received from the field test, which was conducted in May. We conducted our own independent analyses of these data to determine whether the items developed to date have good statistical properties. The rate at which items survive statistical screens is an indicator of the quality and thoroughness of the item development process and also has a major bearing on whether it will be possible to construct test forms that completely cover the targeted content. In addition to examining "survival" rates, we begin a dialog on test score accuracy for forms that resemble the field test forms. The analyses reported in Chapter 4 are only preliminary as the constructed response items (essay questions) are still being scored at this time. We will issue a supplemental report by mid-August, covering analyses of additional data that become available.

Chapter 5, Principal and Teacher Surveys, describes the development of questionnaires intended to identify any preliminary efforts and concerns related to the pending graduation

exam requirement. The primary areas surveyed included knowledge of the test and other related documents, any preparation thus far, future plans, and expectations of and for the test. Surveys were provided to the same representative sample of districts that were asked to participate in the item review workshops. We shipped survey packets in early May. Preliminary results for surveys returned to date are included, but, again, the more complete analysis and results will be reflected in the Supplemental Report.

Chapter 6 presents our Conclusions and Recommendations based on the existing state of data analyses and results.